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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/736,280

12/15/2003

Che-Yu Li

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4289

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09/21/2005

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EXAMINER

LEON, EDWIN A

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,280

Applicant(s)

LI, CHE-YU

Examiner

Edwin A. León

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 16, 21-25, 31, 33, 34 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16, 21-25, 31, 33, 34 and 36-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed July 5, 2005 in which Claims 7-12 have been cancelled, has been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 21-25, 31 and 36-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (U.S. Patent No. 3,686,926). With regard to Claims 1 and 36, Miller et al. discloses an electrical contact (40) comprising a plurality of interlaced, annealed (Column 7, Lines 42-45), and unsupported wires (41-44). Regarding to Claim 36, the limitations" formed by a process comprising (i) interlacing a plurality of conductors so as to form a continuous cylinder wherein the interlaced conductors elastically engage one another so as to be substantially only elastically deformed, (ii) annealing the continuous cylinder so as to substantially eliminate the elastic engagement of the conductors; and (ii1) cutting the continuous cylinder so as to form at

least one open-ended cylinder” have been given little patentable weight since the method of forming the device is not germane to the issue of patentability of the device itself. See Figs. 2 and 5.

With regard to Claim 2, Miller et al. discloses the plurality of interlaced and annealed (Column 7, Lines 42-45) wires (41-44) comprising a woven (Column 7, Lines 9-14) and annealed (Column 7, Lines 42-45) structure that provides a plurality of individual beam-sections. See Figs. 2 and 5.

With regard to Claims 3 and 21-23, Miller et al. discloses the plurality of interlaced and annealed (Column 7, Lines 42-45) wires (41-44) comprising at least three discrete wires (41-44) that have been manipulated together so as to interlace them to form a unitary structure (Fig. 5). The method limitations are deemed inherent and are rejected as shown above. See Figs. 2 and 5.

With regard to Claim 4, Miller et al. discloses the plurality of interlaced and annealed (Column 7, Lines 42-45) wires (41-44) comprising eight discrete wires (41-44) that have been manipulated together so as to interlace them to form a unitary structure (Fig. 5). See Figs. 2 and 5.

With regard to Claim 5, Miller et al. discloses the plurality of interlaced and annealed (Column 7, Lines 42-45) wires (41-44) comprising at least three discrete wires (41-44) that have been manipulated together so as to interlace them to form a unitary tubular structure (Fig. 2) without a central support structure around which the wires (41-44) are wound. See Figs. 2 and 5.

With regard to Claims 6, 24-25 and 31-32, Miller et al. discloses the plurality of interlaced and annealed (Column 7, Lines 42-45) wires (41-44) comprising at least three discrete wires (41-44) that have been manipulated together so as to interlace them to form a unitary tubular structure (Fig. 2) without at least one of an outer and inner support structure. The method limitations are deemed inherent and are rejected as shown above. See Figs. 2 and 5.

With regard to Claim 39, Miller et al. discloses an open-ended substantially cylindrical electrical contact (40) comprising a woven (Column 7, Lines 9-14) plurality of conductors (43) having a longitudinal axis, wherein the woven (Column 7, Lines 9-14) conductors (43) comprise an absence of either elastic or plastic deformations such that longitudinal deflection of the electrical contact (40) results in substantially only elastic deformation of the plurality of conductor. See Figs. 2 and 5.

With regard to Claims 37-38 and 40, Miller et al. discloses an electrical contact (40) comprising a woven (Column 7, Lines 9-14) plurality of conductors (43) having a deflection axis, wherein the woven (Column 7, Lines 9-14) plurality of conductors (43) comprise an absence of either elastic or plastic deformations such that deflection of the electrical contact (40) along the deflection axis results in substantially only elastic deformation of the plurality of conductors (43). The method limitations are deemed inherent and are rejected as shown above. See Figs. 2 and 5.

With regard to Claim 41, Miller et al. discloses an open-ended substantially cylindrical electrical contact (40) comprising a woven (Column 7, Lines 9-14) plurality of conductors (43) having a longitudinal axis, wherein the woven (Column 7, Lines 9-14)

conductors (43) comprise an elastically relaxed state such that longitudinal deflection of the electrical contact (40) results in substantially elastic deformation of the plurality of conductors (43). See Figs. 2 and 5.

With regard to Claim 42, Miller et al. discloses an electrical contact (40) comprising a woven (Column 7, Lines 9-14) plurality of conductors (43) having a deflection axis, wherein the woven (Column 7, Lines 9-14) plurality of conductors (43) comprise an elastically relaxed state such that deflection of the electrical contact (40) along the deflection axis results in only elastic deformation of the plurality of conductors (43). See Figs. 2 and 5.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Miller et al. (U.S. Patent No. 3,686,926). Applicant's admitted prior art discloses a connector system comprising, in combination: a housing (E) defining a plurality of openings (Page 2, Lines 7-9); and an electrical contact (F) disposed in each of the openings (Page 2, Lines 7-9). See Fig. 1.

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However, Applicant's admitted prior art doesn't show the electrical contact comprising a plurality of interlaced, annealed and unsupported wires.

Miller et al. discloses an electrical contact (40) comprising a plurality of interlaced, annealed (Column 7, Lines 42-45), and unsupported wires (41-44). See Figs. 2 and 5.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify system of Applicant's admitted prior art by including the electrical contact comprising a plurality of interlaced, annealed and unsupported wires as taught in Miller et al. in order to improve the structural strength of the system.

5. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (U.S. Patent No. 3,686,926) in view of Fox (U.S. Patent No. 4,242,789). Miller et al. discloses the claimed invention except for the contact being photo-etched.

Fox discloses a wire (Column 3, Lines 34-50) being formed by photo-etching (Column 3, Lines 51-55). See Column 3, Lines 34-55.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the contact of Miller et al. by photo-etching as taught in Fox in order to predetermine the shape of the contact more effectively.

Response to Arguments

6. Applicant's arguments filed July 5, 2005 have been fully considered but they are not persuasive. In response to Applicant's arguments regarding Claims 1, 16, 21, 24,

33, 36-42 that the Miller et al. reference doesn't show an electrical contact used in electrical interconnection devices, Applicant's attention is directed to Column 5, Lines 43-50 and Fig. 2 in which Miller et al. clearly discloses the device being used with a battery and a light as an electrical contact. Regarding the contact being used in electrical interconnection devices, Applicant is reminded that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex. parte Masham*, 2 USPQ2d 1647 (1987).

In response to Applicant's argument that the Miller et al. reference doesn't show the interlaced and annealed structure having at least one goal avoiding extrusions or the use of support structures, the weaving process only elastically deforming his conductors, the structure having inherent macro-elastic properties, Applicant misinterprets the principle that claims are interpreted in the light of the specification. Although these elements are found as examples or embodiments in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, In this case, it is the Examiner's opinion that one with ordinary skill in the art would make the contact of Miller et al. by photo-etching as taught in Fox in order to predetermine the shape of the contact more effectively.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

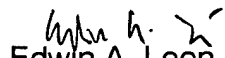
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Edwin A. León
AU 2833
EAL
September 15, 2005


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PRIMARY EXAMINER